

## Coast Guard, DHS

## § 153.1010

- (1) Removing the valves; or
- (2) Installing removable pipes and blind flanges to by-pass the valves.

[CGD 78-128, 47 FR 21211, May 17, 1982]

### § 153.981 Leaving room in tank for cargo expansion.

The person in charge of cargo transfer shall ensure that the amount of cargo in a tank does not exceed the tank's capacity at any ambient temperature between  $-18^{\circ}\text{C}$  (approx.  $0^{\circ}\text{F}$ ) and  $46^{\circ}\text{C}$  (approx.  $115^{\circ}\text{F}$ ).

### § 153.983 Termination procedures.

Upon completion of the transfer operation, the person in charge of cargo transfer shall ensure that:

- (a) The cargo transfer connections are closed off;
- (b) The transfer lines and hoses are drained of cargo, either into the tank or back to the transfer terminal;
- (c) Any electrical bonding between the vessel and the shore facility is broken only after the cargo hose is disconnected and all spills removed; and
- (d) Each vent system is returned to its nonloading configuration.

#### SPECIAL CARGO PROCEDURES

### § 153.1000 Special operating requirements for cargoes reactive with water.

When Table 1 refers to this section, the master must ensure that the cargo:

- (a) Is carried only in a containment system completely isolated from any systems containing water, such as slop tanks, ballast tanks, cargo tanks containing slops or ballast, their vent lines or piping; and
- (b) Is separated by double walls, such as cofferdams and piping tunnels, from any system containing water, as for example those described in paragraph (a) of this section.

### § 153.1002 Special operating requirements for heat sensitive cargoes.

When Table 1 refers to this section, the master shall make sure that:

- (a) The cargo temperature is maintained below the temperature that would induce polymerization, decomposition, thermal instability, evolution of gas or reaction of the cargo;

- (b) Any heating coils in the cargo tank are blanked off; and

- (c) The cargo is not carried in uninsulated deck tanks.

[CGD 78-128, 47 FR 21211, May 17, 1982]

### § 153.1003 Prohibited carriage in deck tanks.

When Table 1 refers to this section, cargoes may not be carried in deck tanks.

[CGD 95-900, 60 FR 34050, June 29, 1995]

### § 153.1004 Inhibited and stabilized cargoes.

- (a) Before loading a cargo containment system with a cargo referenced to this section in Table 1, the person in charge of cargo transfer shall make sure that the cargo containment system is free of contaminants that could:

- (1) Catalyze the polymerization or decomposition of the cargo; or
- (2) Degrade the effectiveness of the inhibitor or stabilizer.

- (b) The master shall make sure that the cargo is maintained at a temperature which will prevent crystallization or solidification of the cargo.

[CGD 78-128, 47 FR 21211, May 17, 1982]

### § 153.1010 Alkylene oxides.

- (a) Before each loading of a cargo containment system with a cargo referenced to this section in Table 1, the person in charge of cargo transfer shall:

- (1) Unless the tankship is equipped with independent cargo piping that meets paragraph (d) of this section:

- (i) Obtain verification from a Coast Guard Marine Inspector or from a representative of the tankship's flag administration that separation of the alkylene oxide piping system complies with alkylene oxide handling plans approved by the Coast Guard or the tankship's flag administration; and

- (ii) Make sure that each spectacle flange and blank flange connection that is required to separate alkylene oxide piping systems from other systems has a wire and seal attached by a Coast Guard Marine Inspector or a representative of the tankship's flag administration.

(2) Purge the containment system until the oxygen content of the cargo tank is less than 2% by volume.

(b) The person in charge of an alkylene oxide cargo transfer shall ensure that:

(1) No alkylene oxide vapor or liquid is released to the atmosphere during cargo transfer;

(2) No vapor return system connected to an alkylene oxide containment system is at the same time connected to another containment system;

(3) Alkylene oxide is discharged only by an intank cargo pump or inert gas displacement;

(4) Transfer hose is approved by the Commandant (G-MSO) under §153.530(o) for alkylene oxide transfer and is marked “For Alkylene Oxide Transfer Only”; and

(5) A water hose is laid out on deck with water pressure to the nozzle, and all alkylene oxide spillages are washed away immediately.

(c) While alkylene oxides are onboard the vessel, the master shall make sure that the oxygen content of the vapor space above the alkylene oxide and those spaces specified in §153.530 (k) and (l) is maintained below 2% by volume.

(d) Tankships with independent piping for alkylene oxides must have on-board:

(1) Alkylene oxide handling plans approved by the Coast Guard or the tankship's flag administration; and

(2) Certification from the Coast Guard or the tankship's flag administration that the cargo piping for alkylene oxides is independent.

[CGD 73–96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78–128, 47 FR 21211, May 17, 1982; CGD 82–063b, 48 FR 4782, Feb. 3, 1983]

**§ 153.1011 Changing containment systems and hoses to and from alkylene oxide service.**

(a) The person in charge of cargo transfer shall make sure that:

(1) No alkylene oxide is loaded into a containment system that last carried a cargo other than an alkylene oxide unless the containment system has been cleaned and inspected to make sure it is in good condition with no heavy rust accumulations or traces of previous cargoes;

(2) No alkylene oxide is loaded into a containment system that within the previous three loadings carried a cargo listed in paragraph (b) of this section unless the containment system has been cleaned to the satisfaction of a Coast Guard Marine Inspector or a person specifically authorized by the Commandant (G-MSO) to approve alkylene oxide tank cleaning;

(3) No cargo but an alkylene oxide is loaded into a containment system which last carried an alkylene oxide unless the containment system has been cleaned of alkylene oxide to the satisfaction of a Coast Guard Marine Inspector or person specifically authorized by the Commandant (G-MSO) to approve alkylene oxide tank cleaning; and

(4) No hose marked “For Alkylene Oxide Transfer Only” is used for the transfer of a cargo other than an alkylene oxide.

(b) The following cargoes are particularly reactive with alkylene oxides:

(1) Non-oxidizing mineral acids (e.g. hydrochloric, phosphoric);

(2) Sulfuric acid;

(3) Nitric acid;

(4) Organic acids (e.g. acetic, formic);

(5) Halogenated organic acids (e.g. chloroacetic);

(6) Sulfonic acids (e.g. alkyl benzene sulfonic);

(7) Caustic alkalies (e.g. caustic soda, caustic potash; sodium hydrosulfide);

(8) Ammonia and ammonia solutions;

(9) Aliphatic amines;

(10) Alkanolamines; and

(11) Oxidizing substances.

[CGD 78–128, 47 FR 21211, May 17, 1982, as amended by CGD 82–063b, 48 FR 4782, Feb. 3, 1983; CGD 81–078, 50 FR 21174, May 22, 1985]

**§ 153.1020 Unusually toxic cargoes.**

(a) No person may load or carry a cargo referenced to this section in Table 1 unless the cargo's piping and venting systems are separated from piping and venting systems carrying cargoes not referred to this section.

(b) The master shall ensure that no heat transfer medium that has been circulated through a cargo referenced to this section in Table 1 is circulated through a cargo not referenced to this section unless he determines the medium to be uncontaminated with cargo.